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NDEP.nv.gov

DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES

DIVISION OF ENVIRONMENTAL PROTECTION

333 W. Nye Lane, Room 138 Carson City, Nevada 89706

Applicant Information

Appucant Injorma	uon						
A) Project Title:	Gooseberry Mine Site		D) Applicant:	l	ada Division of ironmental Protection		
' "		cific, us substance ent grant	C) Funding amo	C) Funding amount \$350,000 for hazardou substances			
E) Project Contact:		Scott Smale, State Brownfields Coordinator					
•		Nevada Division of Environmental Protection					
	33	333 West Nye Lane, Room 138					
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F) Chief Executive L		Leo Drozdoff, Administrator					
	Ne	Nevada Division of Environmental Protection					
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		Carson City, NV 89706					
		Phone: (775) 687-9303					
		Fax: (775)687-5856					
	E-mail: ldrozdof@ndep.nv.gov						
G) Location:	Gooseberry abandoned mine site in a remote section of Storey County, NV						
		egal description: T19N, R22E, Section 25 (Mt. Diablo base meridian)					
H) Population:	3,491 residents (2000 Census data for Storey County, NV)						
I) Other:	Applicant is not a tribe, or a federally designated EZ/EC or Renewal						
	Community ·						
T / T /							

Introduction

The Nevada Division of Environmental Protection (NDEP) in conjunction with Storey County, Nevada is pleased to submit this proposal for a site-specific, hazardous substance Brownfields assessment grant for the Gooseberry Mine Site. This application represents a unique partnership between a state agency and a county government to involve some of Nevada's smallest and most rural communities in the Brownfields Program. Storey County has been faced with foreclosing on a tax-delinquent property which is the site of a medium-sized gold mining operation that had fallen into bankruptcy; however, due to the small population of the county, the county government has only limited resources to manage a federal Brownfields

grant. It is believed that in applying for and managing the Brownfields grant, a strain may be placed on county staff who are responsible for providing essential services to their residents.

The State of Nevada, through the NDEP, has agreed to prepare this grant proposal and, if awarded, to assume the administrative and financial management of the Brownfields site assessment grant in order to alleviate any drain on county services while still allowing the County to receive the full benefits of the Brownfields assessment process. By using the established structures of the State Brownfields Program already operated by the NDEP, the full grant award can be spent directly in site assessment and planning work to move the Gooseberry Mine site towards reclamation and redevelopment at the direction of Storey County.

For the purposes of this grant proposal, the NDEP shall be considered the applicant in terms of meeting the eligibility determinations provided in the Threshold Criteria section. For the Ranking Criteria, the roles and responsibilities of the NDEP and Storey County will be highlighted to show the strengths of the partnership in meeting the goals of the Brownfields assessment, but ultimately, the NDEP will be responsible for working with the US Environmental Protection Agency to ensure that the project complies with all requirements set forth in laws and guidance concerning the national grants.

Project Overview

The Gooseberry Mine site is located in Storey County, Nevada which is a small county encompassing the historic Virginia City Comstock mining district. Virginia City and the Comstock lode represented the largest gold and silver boom in the history of the Old West, and Storey County continues to be impacted by this historic legacy mostly through the positive impact of a flourishing tourist trade. Active mining throughout the County continues to be a major source of revenue supporting essential government service, but just as the boom of the Comstock lode eventually ceased, the revenue generated by contemporary mining activities is in constant jeopardy of drying up.

In 1998, with the decline of gold prices, the owner and operator of the Gooseberry mine site declared bankruptcy. The mine, which had been located in a remote area of the county, was deeded to the County for the non-payment of back taxes. An effort was undertaken by the stakeholders involved to conduct necessary cleanup actions using the State of Nevada Mining Bond which would mitigate outstanding threats posed by the presence of uncontained wastes at the site. Insufficient funds were available for full site reclamation, leaving the County a site which was an environmental and economic liability.

Developers have expressed an interest in acquiring and utilizing the site but have shied away from the property based on the projected costs associated with full site reclamation. The site is in the perfect location for heavy industrial re-use development due to the existing infrastructure and the infrastructure improvements being brought to the area to support the adjacent industrial park. It is the State of Nevada and Storey County's hope that the funds available through the Brownfields Program in conjunction with existing resources can bring the Gooseberry mine site to a condition allowing for its redevelopment, thereby strengthening and diversifying the economy of this area which has been so heavily reliant on mining revenues.

Threshold Criteria

A. Applicant Eligibility

This application for Brownfields site assessment funding is being made by the Nevada Division of Environmental Protection. The NDEP is an eligible entity for the receipt of these funds as an official representative of the State of Nevada. The NDEP has received Brownfields funding in previous years both as an applicant for the award of a competitive Revolving Loan Fund grant and also as the on-going recipient of funding authorized through CERCLA Section 128 for approved state response programs.

B. Community Notification

A finalized draft of this application was made available to the County Commission offices of Storey County as well as the County Building Manager by the NDEP on October 8, 2004. The draft application was provided to the County employees involved with the project in order to receive comments and to allow for the County to notify its residents of the application. The draft was also provided to other regulatory agencies involved in abandoned mine site cleanup including the Nevada Division of Minerals and the Bureau of Land Management for application review. Comments received by Storey County, the Nevada Division of Minerals, and the Bureau of Land Management have been incorporated into this final grant proposal.

County employees undertook the following efforts to present the draft application to county residents (a county-wide approach was undertaken since there are no residents in close proximity to the mine site which is situated in a remote area being planned for an industrial park):

- The application was presented as an agendized item on the October 19th County Commission meeting where a presentation was made to the three sitting Commissioners and the county residents in attendance (as discussed later in the application, County Commission meetings are the primary method of community notification and involvement. Due to the extremely small size of the County, direct participation by county residents results in high attendance at all Commission meetings).
- A copy of the application was made available for public review at the county government offices.

C. Letter from State Environmental Authority

The NDEP is both the applicant and the state environmental authority; therefore, no letter has been attached.

D. Site Eligibility (site specific, hazardous substance assessment grant)

1) The NDEP is requesting a waiver of the \$200,000 per site funding limit, up to the maximum of \$350,000 for a site specific assessment grant proposal. It is our belief that this level of assessment is appropriate and necessary for the Gooseberry mine site due to the size of the site and the number of waste sources which need to be characterized and accounted for in the development of cleanup/reclamation plans. The site covers approximately 90 acres (of which 70 acres are subject to this grant proposal, the additional 20 acres are managed by the federal Bureau of Land Management as discussed below). The site includes several structures including a mill, laboratory, and reagent storage sheds. The majority of the site is covered with mine waste materials which may be sources of hazardous substance contamination including several tailings impoundments, a leach pad, pregnant solution ponds, and a solid waste landfill. In addition to

the characterization and assessment of waste materials, a significant amount of resources will be necessary to develop detailed cleanup and reclamation plans which will allow for the efficient use of the discreet cleanup funds available for the site.

- a) The Gooseberry Mine site is not listed on the National Priorities List; the site received a "No Further Remedial Action Planned" designation on November 1st, 1987 upon completion of a Preliminary Assessment as listed in the Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS). b) The site is not currently subject to unilateral administrative orders or any other type of action entered into under CERCLA. c) Portions of the mine site are under the control of the federal Bureau of Land Management; however, this grant proposal includes only those portions of the site which are deemed to fall within the private property framework of public mining laws. A map has been provided as attachment A showing the site and the breakdown of patented lands and public lands. Of the approximately 90 acre site, 21.4 acres are located on public lands managed by the BLM; the remaining 68.5 acres are patented claims and patented fee lands. The majority of structures and mine waste materials are located on the private lands except for a portion of the heap leach pad, the laboratory, and a small unlined tailings pond which are under the control of the BLM. The Carson City office of the BLM has affirmed their commitment to work cooperatively to deal with these few contamination issues using funds available from other sources.
- a) The official name of the site is the Gooseberry Mine. No other site names are known 3) to be associated with the mine. b) The site has no specific address. It is located in the northeast and southwest quarters of Section 25, Township 19 North, Range 22 East of the Mount Diablo Meridian. Access to the site from Reno, Nevada is east 18 miles along US Interstate 80, then 8 miles south from the Tracey Clark Exit on a well maintained dirt road. contaminated with hazardous substances, most likely heavy metals, cyanide, and acid mine drainage. There may be limited amounts of petroleum hydrocarbon contamination, but these areas will not be dealt with through this grant proposal; other sources of funding will be leveraged to deal with petroleum issues. d) The site has been used for the underground mining of gold and silver ore and for the milling of ore using cyanide leach and flotation. Some historic mining activities (from the early 1900's) have been documented, but most of the site issues are a result of modern mining operations using cyanide heap-leach processes. e) The site has several sources of metal and cyanide contamination due to past gold mining uses. Some waste materials are currently contained in unlined impoundments, presenting a threat to groundwater resources. Those waste sources which are contained in lined impoundments do not have appropriate soil cover material presenting a threat for run-off and bulk migration during precipitation events. Also, exposed material could present a direct soil or air-borne dust hazard to on-site workers in an industrial re-use scenario.
- 4) The NDEP has determined that the site does not have any factors which would require a property-specific determination to demonstrate eligibility for Brownfields funding.
- 5) The site has not been fully characterized. A contract has currently been let using the State of Nevada mining bond pool to deal with immediate threats posed by the mine site including the characterization and removal of hazardous waste in barrels scattered throughout the site and the placement of cyanide contaminated wastes, which are currently in unlined

impoundments, into lined repositories. These efforts will eliminate many of the worst environmental concerns at the site, but site reclamation will still need to proceed in order to reduce or eliminate on-going environmental issues from seeps or run-off. The purpose of this grant proposal is to perform characterization and develop cleanup plans associated with the *reclamation* of the mine site.

- a) The property deed is currently held by the Storey County Treasurer. b) The property was deed to the County in June of 1998 when the previous owner/operator filed for bankruptcy. The deed was taken as foreclosure on back taxes. c) Pallas Resources owned the site from 1993 to June of 1998.
- 7) The site has become contaminated through the operation of a hard rock mine for the extraction of precious metals through milling and cyanidization of low concentration ores. Process elements which have contributed to site contamination issues include the storage of process chemicals, the disposal of mill tailings waste after processing, and unreclaimed process units including a heap-leach pad, a barren pond, and a pregnant pond for the storage of process solutions. The volume of waste materials has not been determined, but some inclination as to the location and size of waste materials can be given from the site map located in Appendix A. No characterization information is available to determine whether the site has impacted subsurface resources, specifically groundwater.
- 8) The applicant is not aware of any environmental enforcement actions related to the Gooseberry Site. A hazardous waste removal effort is being undertaken through the coordination of various regulatory agencies, but the effort is being funded with limited bond money available for the site under the State's Mining Bond pool.
- 9) The Gooseberry Mine site is not owned by the NDEP, who is the applicant under this grant proposal. a) Storey County, who currently holds the deed for the property, is considered the current owner; they are also a fully cooperative and coordinating agency in the reclamation of the mine site. A letter from Storey County has been included as part of the application as Attachment B. b) As a partner government, Storey County will be involved in all decision making efforts and will receive all site information as it is collected. Re-use decisions at the site will ultimately be made by the county, so their intentions will drive and direct reclamation efforts. c) Site access issues are not a concern since Storey County is a cooperative partner.
- 10) The Gooseberry Mine site is not owned by the NDEP, who is the applicant under this grant proposal.

Ranking Criteria

A. Assessment Grant Proposal Budget

The NDEP is proposing to budget \$350,000 for the reclamation planning phase of the Gooseberry Mine site project. Funds will be expended under three tasks: 1) site characterization, 2) cleanup planning, and 3) community notification. All funds will be placed into a contract in accordance with procurement procedures contained in 40 CFR 31.36 to secure the services of a an engineering/environmental firm familiar with mine site reclamation. By placing all funds directly into contractual services, the amount of money expended from the grant for actual site

work (including sampling, engineering designs, and cost proposals) can be maximized. Funds received through this grant proposal will not be expended on certain activities which are considered otherwise eligible activities, including expenses associated with reporting, oversight of assessment, and program development/implementation. The source of funding for these otherwise eligible activities will be discussed in more detail in the narrative following the budget table.

Budget Categories	Project Tasks					
(programmatic costs only)	[Task 1] Site Characterization	[Task 2] Cleanup Planning	[Task 3] Community Notification	Total		
Personnel						
Fringe Benefits						
Travel						
Equipment						
Supplies						
Contractual	\$150,000	\$175,000	\$25,000	\$350,000		
Other						
Total	\$150,000	\$175,000	\$25,000	\$350,000		

Budget Narrative

[Task 1] Site Characterization:

As discussed previously, an effort is underway using State bond money to mitigate threats posed by containerized wastes and unlined waste repositories with known cyanide contamination. The purpose of the characterization which would be undertaken through this grant proposal is to support mine reclamation efforts which would clear the land for industrial reuse. The following characterization efforts are anticipated:

- Soil sampling in plant site area to identify any residual contamination or waste source areas which were not fully mitigated through the "removal" actions undertaken with State Bond funds. The plant site will most likely serve as the location for any intensive reuse activities if industrial redevelopment occurred at the site; characterization of soils in these areas would allow for determinations to be made regarding worker exposures and safety.
- Waste and process unit characterization and sampling (tailings, heap leach pad, solution ponds). This information will be necessary to develop appropriate covers to ensure that the repositories will met State zero-discharge requirements for these wastes. Groundwater monitoring wells may be installed in order to characterize and protect these resources and to demonstrate compliance with zero-discharge requirements.
- Seep identification and characterization of site hydrology, including the installation of piezometers to determine water levels in waste piles. Hydrologic conditions will dictate whether waste piles are likely to dry-out or be a continuous source of seeps which would need to be managed in order to protect surface water resources in the area or to limit exposure to on-site workers.
- Characterization of possible contamination in on-site buildings and facilities. On-site buildings may have become contaminated with hazardous substance through the storage of process chemicals or from releases associated with mine site operations. Sampling of these facilities would help determine whether buildings could remain in-place for use

during future industrial operations, or whether they should be removed during site reclamation.

All sampling activities will be conducted through the development of site-specific sampling and analysis plans which would need to be approved by the NDEP and the EPA Region IX Quality Assurance Officer prior to proceeding with site work. The cost of development of these plans is anticipated to be minor because of the successful relationship which has been developed between the NDEP Brownfields Program and the EPA Quality Assurance office, maximizing the amount of money budgeted for this task to be spent collecting and analyzing samples.

[Task 2] Cleanup Planning

In order for Storey County to get the site to a marketable condition for industrial re-use, reclamation activities need to be undertaken. Reclamation is necessary in order to eliminate any on-going threats posed by the mine site and threats to potential on-site workers. Storey County is investigating the sources of funding available to conduct cleanup activities at the site (as discussed in Section H—Leveraging of Additional Resources). In order to make best use of the funds which will be available for actual cleanup activities, a significant effort to create detailed cleanup plans (including associated cost estimates) is being planned for the assessment phases of site reclamation. The anticipated cleanup planning efforts will include:

- Creation of detailed engineering specifications of waste repository covers to allow for evapo-transpiration of precipitation events, run-on/run-off control, and grading determinations to prevent erosion or other activities which would reduce the integrity of cover materials.
- Development of appropriate re-vegetation strategies, which may include pilot studies of various seed mixes on the smaller waste repositories to determine growth success and evapo-transpiration impacts.
- Investigation and identification of native soil borrow material which could be used to construct repository covers. Borrow material will be characterized based on its compaction capabilities (to serve as low hydraulic conductivity fill material for process ponds) and its ability to support native vegetation (for evapo-transpiration covers).

Developing a detailed cost analysis of reclamation alternatives will also be an important step in the cleanup planning phase for two reasons: 1) it will help the County leverage and prioritize cleanup funds for site reclamation and 2) it will help the County market the site to developers and negotiate an appropriate re-sale value.

[Task 3] Community Notification

Storey County has agreed to coordinate the public involvement and notification process as outlined in Section F of this grant proposal. Funding for their public involvement efforts are not being sought under this grant proposal. The \$25,000 included in the budget for Community Notification will be used to provide the County with technical assistance in the public involvement process. Under this task, contractor support will be available for the development and printing of brochures and fact sheets and making technical presentations at public meetings. Through the contractual support, the County may also be interested in drafting press releases and coordinating media events to tout site cleanup and development on a regional level since the project may have beneficial impacts in neighboring communities in Washoe and Lyon counties.

[Otherwise eligible activities]

Other than the amount budgeted in contractual support for community notification, community involvement activities conducted by Storey County will come from in-kind activities through established County structures, employees, and resources. Required reporting activities as negotiated between the NDEP and the EPA will be conducted with resources through the existing State Brownfields Program which receives funding through CERCLA Section 128, State Response Program grant. Likewise, assessment oversight by the NDEP Brownfields Program, in conjunction with the State Division of Minerals and NDEP's Bureau of Mining Regulation and Reclamation (which both operate mainly through the collection of fees associated with mining operations and do not receive federal funds), will be conducted through in-kind activities.

B. Community Need

The target community impacted by the Gooseberry Mine project is considered to be Storey County, Nevada. Storey County is one of Nevada's smallest counties both in terms of population and land area. The County was created in 1861 around the "Comestock Lode" mining boom towns of Virginia City and Gold Hill known at the time as "The Richest Place on Earth" because of the large quantities of high-value gold and silver ore being extracted from the surrounding hills. The money being made in Virginia City financed the building boom in San Francisco as the return on investments made the fortunes of such prominent Californians as Leland Stanford, George Hearst, and William Mackay.

A remarkably long boom period occurred in Virginia City lasting nearly three decades which resulted in the construction of a thriving and opulent community. Opera houses, mansions, newspapers (starting the literary career of Mark Twain), and a thriving red-light district were constructed in the hill-side community which once hosted a population of 30,000 residents. The rich lodes were exhausted by the turn of the century, but the area remains preserved today as one of the nation's largest designated historical districts. The tourism associated with Storey County's rich mining history remains the largest source of revenue and employment for the county's much smaller, current population.

In 1990, the population of Storey County was 2,560 persons. The small population in the county supports only limited government services which are overseen by only a few county employees responsible for the management of an elementary school district, a building/utilities department, and other essential services. In the 10 year period between 1990 and 2000, there was a 33% increase in population with 3,391 residents reported in the US Census for Storey County. Current estimates by the Nevada State Demographer for Storey County show a population size of 3,736. A strain is being placed on the limited County resources which are required to meet the needs of its increasing population base; for this reason, the Nevada's Brownfields Program has agreed to help Storey County by taking over many of the responsibilities for the Gooseberry Mine Brownfields project.

The population of Storey County is primarily rural with only about a quarter of the population living in the population centers of Virginia City (pop. 904) and Gold Hill(pop.180). Since Virginia City and Gold Hill are both unincorporated communities, residents rely on services provided by the county government only. This stretches County services across both town sites and the largely diffuse, surrounding rural populations.

2) Like most of Nevada, employment rates and poverty indicators in Storey County are consistently better than national averages. However, much of the employment for Storey County residents is not being found in Storey County itself. The majority of residents are required to

commute to neighboring urban areas since there is very little rural employment available—Storey County is composed entirely of hilly or mountainous terrain, and traditional rural employment, such as agriculture, is not possible. Below is a table showing the commuting patterns for the Storey County labor force provided by the Nevada Department of Employment Training and Rehabilitation.

Year	Area of Residence	Area of Workplace	Number of Workers
2000	Storey County, NV	Washoe County, NV	900
2000	Storey County, NV	Storey County, NV	336
2000	Storey County, NV	Carson City, NV	322
2000	Washoe County, NV	Storey County, NV	134
2000	Lyon County, NV	Storey County, NV	128
2000	Storey County, NV	Lyon County, NV	121
2000	Carson City, NV	Storey County, NV	65
2000	Storey County, NV	Douglas County, NV	36
2000	Mono County, CA	Storey County, NV	15
2000	Storey County, NV	Sacramento County, CA	9

(The highlighted fields indicate commuting patterns from Storey County to urban areas in adjacent counties)

The heavy commuting pattern presents a serious challenge to Storey County since the county government is responsible for providing services to their residents but does not benefit from the employment revenue generated by their labor force.

The Gooseberry Mine Brownfields Project is part of a larger effort by Storey County to diversify their economic base, provide employment opportunities to its rural population, and attract a labor force from surrounding urban centers. A large industrial park is being planned in the vicinity of the Gooseberry Mine. The infrastructure improvements associated with the industrial park include the paving and widening of the dirt road which had served as access to the mine site. This new road will serve as a connector for the burgeoning rural development corridor between Washoe, Storey, and Lyon counties, which has been a key part of the economic diversification of not only Storey County but all of western Nevada, including the Reno metropolitan area (whose reliance on tourist/gaming revenues are being threatened by legalized gaming in California).

The access and infrastructure improvements being installed to service the adjacent industrial park has resulted in an increase in developer interest for the re-use of the Gooseberry mine site for industrial purposes. Since the Gooseberry mine property is primarily under private ownership, targeting redevelopment to this site is a priority since development is often not possible on federally managed lands which constitute the majority of land area in the county. Already, developers have approached the County to re-develop the property, but they have been scared away by the possibility of being required to conduct site reclamation as part of site development.

3) Mining has a long history in Storey County, and mining continues to be one of the county's leading industries as low concentration ore bodies are discovered and extracted through modern mining techniques including open-pit mining and heap-leach processing. Both historic and modern mining operations have placed a burden on the county's environment and economy including impacts to water resources and the reduction of land available for development.

Historic mining and milling operations involving mercury amalgamation techniques associated with the mining boom of the 1860s has resulted in the widespread contamination of the Carson River drainage basin with elemental mercury. This has led to the designation of the only Superfund site in the State of Nevada (the Carson River Mercury Site) and the only fish advisory posted by the US Fish and Wildlife Service for the state. While the Gooseberry Mine site, and many other current and historic mine sites, does not lie within the boundaries of the Carson River Mercury Site, it is indicative of the severe environmental impacts that mining can have on both environmental and community health. There are historic or abandoned mine sites located throughout Storey County with acid mine drainage or heavy metal issues which may be negatively impacting the scant water resources in the area.

As discussed previously, the topography of Storey County is entirely composed of hilly or mountainous terrain with very little developable land. Hard rock mining operations may rely on hilly terrain because of the location of ore bodies, but the extraction of metals through both historic and current mining processes requires flat land, especially for the construction of mills and heap leach pads. Flat, developable land is at a premium in the County, and most of the usable space has already been impacted by mining operations by construction of extraction facilities or the placement of waste deposits. The development prospects of Storey County has been constrained by these previous, land-intensive mining practices.

C. Site Selection Process

1) The Gooseberry Mine site was identified as a potential Brownfields project through the efforts of the Nevada Interagency Abandoned Mine Lands Environmental Task Force comprised of the Bureau of Land Management, Nevada Division of Minerals, the Nevada Bureau of Mines and Geology, the Nevada Division of Environmental Protection, and others. The Nevada Interagency Abandoned Mine Lands Environmental Task Force is a collaborative effort among the government agencies with regulatory authority oversight of the mining industry to promote and oversee the reclamation of legacy mine sites and operations that fall into bankruptcy.

The Gooseberry mine was identified as a potential Brownfields project due to three factors: 1) the majority of the site, including source areas and processing facilities, were held in private ownership; 2) the county government was actively involved in the site due to the non-payment of back taxes; and 3) the demonstrated re-development potential of the mine site. The State Brownfields Program was notified about the site, and meetings were held between the NDEP and Storey County to discuss the potential of applying for assessment funding to help get the site back into productive use.

The State Brownfields Program hopes that the Gooseberry Mine site project will serve as a demonstration of the resources available through the Brownfields program for the identification, assessment, and cleanup of other mine-scarred lands in the State of Nevada. There are many mine-scarred lands across Nevada. Not all of these properties would be eligible for Brownfields funding because many may be located entirely on federally managed lands, or they may have a viable responsible party associated with them, or they may simply lack any true re-development potential; however, there may be a subset of legacy or bankruptcy sites where cleanup could be facilitate by Brownfields Resources. One of the goals of the Gooseberry project would be to educate and familiarize the members of the Nevada Interagency Abandoned Mine Lands Environmental Task Force with the Brownfields program to assist in the identification of these sites in the future.

3) For this particular, site-specific assessment proposal there are no concerns with access to privately-owned sites. The private patented and fee lands at the Gooseberry site are currently held in deed by Storey County who is a cooperative partner in this grant proposal. Future Brownfields efforts on mine-scarred lands in Nevada (though no subject to this grant proposal) may encounter access issues on privately owned sites, but it is likely that the NDEP and the Task Force members would target sites with significant local government involvement, thereby eliminating these access concerns.

D. Sustainable Reuse of Brownfields

The Nevada Brownfields Program has entered into a cooperative partnership with Storey County for the assessment and reclamation of the Gooseberry Mine in order to achieve the following economic and quality-of-life goals (the following goals roughly correlate to those listed in the grant proposal guidelines):

- 1) Protect wildlife resources—It is likely that industrial re-use of the site will not occupy the full 70 acres currently held in private ownership. The reclamation of the large waste piles and source areas at the mine site will leave most of the site open and available for wildlife foraging and usage.
- Diversification and expansion of economic resources in the County—Industrial re-use of the site will provide a stable source of revenues which are not tied to fluctuating gold and silver prices on the international market. The site will also serve as a magnet project which will help the county retain the labor resources of its residents while also attracting skilled workers from neighboring urban centers. The Gooseberry project will operate within the larger development efforts being promoted by the State of Nevada to attract out-of-state investment and promote business relocation based on the availability of modern infrastructure, cheap utilities, and a large, skilled workforce.
- Maintain the county's rural character by providing employment opportunities consistent with rural population patterns and resources—A centralized industrial sector with easy access will act as a large source of local employment without requiring a transition to urban living patterns. The rural character of Storey County is not only important to the quality-of-life of current residents, who place a premium on the open-space and an environment free from noise and air pollution, but also for the maintenance of a thriving tourist industry based on the historically rough and rustic essence of Virginia City.
- 4) Expand existing infrastructure and target currently available resources for economic development—Federally managed lands can act as both a cushion to maintain open space and as a barrier to economic development. While the Gooseberry mine and surrounding projects represent a large source of new development and infrastructure investment, the pressure to transfer open federal lands into private ownership will be lessened because of the presence of existing infrastructure (mine access roads and utilities which had previously supplied resources to mining operations) and the targeting of large pockets of lands which have already transferred out of federal management.
- Reduce commuting pressure for area residents—By providing a large source of local employment, Storey County hopes to reduce the factors which lead residents to seek opportunities in neighboring urban centers. Storey County is currently accessible only through 2-lane mountain highways, creating traffic congestion problems even through the County has less than 4,000 residents. Not only will a local employment source reduce commuting pressure for residents, but the paving and widening of the mine access road

- accessible from the interstate will also allow for workers from the neighboring urban areas to reach the industrial park without traveling through the heart of the county.
- 6) Develop a stable and secure industrial economic base—Transitioning the area around the mine and the mine itself to an industrial/manufacturing center will create a stable economic core which is not as likely to fall into bankruptcy or become abandoned based on fluctuating gold prices.

E. Creation and/or Preservation of Greenspace/Open Space or Nonprofit Purpose

The construction of a centralized industrial park and the redevelopment of the Gooseberry mine represents a significant investment in infrastructure improvement and new development, but the project is not inconsistent with the protection of open-space. By centralizing industrial development around privately owned sites which have already been impacted by intensive resource extraction, the project helps to reduce the consumption of virgin lands which are managed as open space by federal land management agencies. The primary purpose of the project is the economic growth and diversification of Storey County, but due to the centralized nature of the industrial park and the easy access for workers from the surrounding urban communities, it is anticipated that the project will not dramatically increase the population of the county which could create a demand for more land consumption.

Federally managed lands in the area are used for a wide variety of recreational purposes, including hiking, hunting, resource gathering, and off-road vehicle use. It is in the interest of Storey County to reduce the pressure for the consumption of these open, undeveloped spaces. Ultimately, it is only the Federal land manager who has the authority to transfer land into private ownership, but by promoting projects for economic development consistent with a stable, rural population, Storey County can help reduce the pressure placed on the Federal land managers to authorize property transfers.

The economic benefits of the Gooseberry mine redevelopment project which would be provided to the County will help the county government expand its scope beyond simply providing essential services to its residents. Increased county resources would allow Storey County to undertake projects for the preservation of its historical treasures and the expansion of county parks and greenspaces which it is not currently able to undertake.

F. Community Involvement

1) Storey County will be involved directly in coordinating assessment and cleanup decisions at the Gooseberry Mine Site through its partnership developed with the State of Nevada. Even though the Nevada Brownfields Program is the applicant and would be the recipient of the grant award, the county government will still fully benefit from the local and community empowerment which the Brownfields program provides. All site decisions regarding the scope of work will be made in coordination between the partner governments, and all results and findings will be directly communicated to both parties.

Due to the small size of Storey County, direct involvement and participation by community members will be undertaken through the established forum for the discussion and resolution of all community issues: County Commissioner meetings. The County Commission, which meets on the first and third Tuesdays of every month, acts as a substantial interface between elected county officials and community members. Because Storey County is traditionally rural, nearly all notifications and decisions affecting community members are

handled through this single forum, and community attendance and participation is very high—especially for issues impacting the environment and wildlife.

The Gooseberry Mine site will be placed as a regular agenda item at County Commissioner meetings during the 2-year grant period. Presentations to the Commission and community members could be made by county staff, state employees, or technical contractors depending on the information which would need to be conveyed at that time. Where significant community input would be necessary for any particular site decision, the agenda item would become actionable, allowing for community discussion prior to a call for a vote from the Commission members.

- This application represents a unique partnership between a local and state government to achieve redevelopment at a mine-scarred property, which can hopefully serve as a model for further involvement by Nevada's rural communities in the Brownfields program. Beyond the partnership between Storey County and the Nevada Brownfields Program, the Gooseberry Mine Site also has heavy cooperative involvement from a number of state and federal agencies as discussed previously. The willing involvement of the members of Nevada Interagency Abandoned Mine Lands Environmental Task Force, a collection of regulatory, scientific, and land management agencies, demonstrates that the Brownfields program may be able to serve as a reliable tool in future projects to effect cleanup and redevelopment on abandoned mines throughout Nevada.
- 3) In addition to being placed as a regular agenda item at County Commissioner meetings, where notifications can be made directly to Commissioners and citizens, progress at the Gooseberry Mine project will be communicated through periodic press releases to the Territorial Enterprise (the newspaper that started Mark Twain's literary career), the only publication dedicated to Storey County news and issues. Fact sheets and newsletters detailing site progress can be produced and distributed through money budgeted in this grant proposal for technical support.
- 4) The small population and rural density patterns of Storey County does not support the development of structured or organized community-based groups. Nearly all issues impacting residents are resolved through direct involvement in established county government structures described above, especially County Commissioner meetings.

G. Reduction of Threats to Human Health and the Environment

1) The assessment and eventual reclamation of the Gooseberry Mine site will be focused on eliminating three potential exposure threats: on-site worker contact with waste materials under an industrial re-use scenario, degradation of existing water resources, and wildlife exposures. Site reclamation should be protective of these resources, and the site characterization planned under this Brownfields grant proposal specifically addresses these elements.

The primary exposure pathway of concern at the mine site, which would result under the site's intended re-use, is the potential for on-site workers to come into direct contact with waste material or with soil which has been impacted by mine waste disposal and migration. It is anticipated that the current mine plant site would be the area targeted for industrial redevelopment; therefore, the bulk of the characterization effort would be directed towards identifying any plant site soils which had been impacted by mining operations. Efforts of the BLM, Nevada Division of Minerals, and NDEP have already led to the identification and removal of many hazardous waste sources in the plant site area, including the removal of drums and unlined waste piles, but any residual contamination in surrounding soils has not been fully

characterized. Also, an assessment of the threats posed by the remaining plant site facilities and buildings needs to be conducted in order to determine whether these structures should be demolished prior to site re-use.

The large waste sources, including the tailings piles and heap leach pad, are located in areas which would most likely not be targeted for active industrial use, though reclamation should still allow for this possibility. The primary concern for these sources is the threat they pose to area water resources through either surface runoff or groundwater migration. The acid generating potential and metal and cyanide content of the waste piles are currently unknown, but there is a potential for the site contaminants to migrate to water sources as demonstrated by the observation of seepage from one of the site tailings piles. The observed seep reports to a dry drainage ditch; though the seep is not of sufficient volume to travel to any nearby water bodies, more significant precipitation events may result in contaminant loading threats. The integrity of the liners beneath some waste sources is also uncharacterized. These sources need to be investigated in order to determine whether they would comply with zero-discharge requirements for mine site reclamation designed to be protective of groundwater resources.

Contaminated runoff and continual seeps generated at the site may not be of sufficient volume to impact area water resources, but the unrestricted access to the site by area wildlife means that animals may come into contact with acidic, metals-rich waters. The current lining of waste sources, such as the barren and pregnant bonds, may ultimately be shown to be protective of groundwater resources, but the liners may also serve to collect and pool water during heavy precipitation events. Where pooled water is in direct contact with waste materials, acid generation an metals leaching may occur. Piles and ponds need to be covered and re-graded to prevent direct wildlife contact with waste materials and to prevent the pooling of water in contact with waste sources, which may attract wildlife to the site and lead to exposures to heavy metals or cyanide.

This grant proposal represents a strong partnership between a county government and the state agency responsible for the protection of human health and the environment; the goals of the partnership are to turn a site which is currently an **economic** and **environmental** liability for citizens of Storey County, and the State of Nevada as a whole, into a usable site by meeting the interests of both parties. The partnership, and the Brownfields resources being sought, will also operate within an established, interagency framework which has already achieved success in the cleanup and reclamation of a number of abandoned mine sites across Nevada: the Nevada Interagency Abandoned Mine Lands Task Force. The Gooseberry Mine site project represents a unique opportunity to demonstrate how potential site reuse can augment the existing cleanup framework by having the anticipated reuse drive cleanup decisions and by making additional funding sources available to ensure a fully protective remedy.

Because of the large size and remote location of many mine sites, the cleanup of abandoned mines is often driven by the limited resources available. Reclamation of the Gooseberry site will be conducted with greater available resources (thorough this grant proposal) in order to ensure that future on-site workers will not be exposed to any hazards from mining wastes. This greater level of cleanup, driven by industrial reuse, will also be more protective of water and wildlife resources in the area.

Site characterization, cleanup, and reclamation efforts will not only be overseen by the NDEP and Storey County, but also through the involvement of all members of the Nevada Interagency Abandoned Mine Lands Environmental Task Force who all have familiarity with MSHA (Mine Safety and Health Administration) and OSHA HAZWOPER (Hazardous Waste

Operations and Emergency Response) worker health and safety training and regulations. Site operations from assessment through reclamation will be conducted in accordance with established health and safety procedures maintained by these agencies.

H. Leveraging of Additional Resources

1) The financial needs for site reclamation are not currently known. An educated estimate for full site reclamation based on the experience of members of the Nevada Interagency Abandoned Mine Lands Environmental Task Force, has placed the anticipated cost at \$1.2 million. This estimate includes the cost of containerized waste removal, site characterization, cleanup plan development, waste consolidation, and waste pile reclamation. Until full site characterization is achieved, an accurate cost for site reclamation cannot be developed, but the \$1.2 million figure is thought to be a generally good estimate.

The actual redevelopment of the site for heavy industrial purposes is dependent entirely on the planned intensiveness of re-use, which is currently unknown. The costs of site redevelopment will be borne entirely by the private developer.

- 2 & 3) Since the Gooseberry Mine project is a collaboration between a number of involved county, state, and federal agencies, various sources of cleanup and reclamation funding is being used and leveraged to achieve a unified solution on this mixed-ownership mine site. A description of the source, type, and level of funding currently available is provided below. Since the funding is being pulled from many different sources, each with different requirements and exclusions, it is hoped that the cleanup planning capabilities of the Brownfields assessment grant would allow for the creation of an exact budgeting of activities and costs associated with site reclamation. The budget would act as a funding map so that decisions regarding the appropriateness and sufficiency of these disparate funding sources can be made:
- US Army Corps of Engineers, Reclamation of Abandoned Mine Sites (RAMS) funds—The Nevada Interagency Abandoned Mine Lands Environmental Task Force oversees the distribution in the state of RAMS money available for the identification and characterization of abandoned hard-rock mines in the Western US. The money is primarily intended for site assessment activities, but can be used for the construction and investigation of pilot remedies at sites. It is anticipated that Brownfields funding could fully characterize the Gooseberry site, but the use of RAMS money may be necessary to characterize those portions of the mine located on lands managed by the BLM. If used together, Brownfields and RAMS funding would allow for a fully integrated assessment across the mixed-ownership site.
- Nevada State Mining Bond Pool—The State of Nevada, through its Division of Minerals, operates a bond pool for small- to medium-sized mining operations. These operations can make payments into the State Bond pool in lieu of establishing a private bond for site reclamation to be conducted after the cessation of active mining operations. These bonding requirements are established in state law. For the Gooseberry mine site, the amount paid into the bond pool prior to operator bankruptcy, and subsequently the amount available to be withdrawn, is insufficient to conduct full site reclamation which would allow for industrial re-use. Approximately \$250,000 is available for use on this site. A significant portion of these funds is currently being expended to remove containerized wastes and to excavate cyanide waste materials which had been placed in unlined repositories. The bond pool funds remaining after completion of these priority cleanup elements would be targeted for site reclamation work as dictated by Brownfields assessment efforts.

- Brownfields Cleanup Grants—Based on the results of the Brownfields assessment, Storey County would be encouraged to apply for a site-specific cleanup grant under the Brownfields program to supplement the limited cleanup funds available from the State bond pool.
- BLM Central Hazardous Waste Management Fund—In order to achieve full site cleanup, the State bond pool funds would be targeted to lands managed by the BLM since Brownfields cleanup funds would not be eligible. If the bond funding were to prove insufficient to deal with the limited waste sources on BLM land, funding may be leveraged from the Central Hazardous Waste Management Fund managed by the BLM.
- Private development money—Redevelopment of the site and the construction of industrial facilities would be fully financed by funding from private sources. Also, any remaining site cleanup elements which hadn't been achieved with the sources listed above could be negotiated with the private developer at the sale of the land by Storey County. The selling price of the site could be negotiated based upon the calculated cost of remaining cleanup elements, thereby passing some of the cleanup costs onto the site developer.
- Nevada Brownfields Cleanup Revolving Loan Fund—If a private developer assumed the cost of any remaining reclamation elements, low interest loans would be made available through the BCRLF managed by the NDEP.

I. Ability to Manage Grants

- The Nevada Division of Environmental Protection will be responsible for all grant management and financial accounting requirements upon receipt of funds. These activities will be accomplished through the established structures of the Nevada Brownfields Program and the agency's Office of Financial and Personnel Management. The Nevada Brownfields Program staff have several years of experience overseeing all technical aspects of Brownfields assessments and cleanups including the scoping of sampling efforts, development of Quality Assurance Project Plans, data validation, health & safety plans, technical report preparation, etc. The Office of Financial and Personnel Management of the NDEP operates under established and defensible accounting procedures for all aspects of federal grant administration; structures have been developed for request for proposals for contractor selection, accounting & record-keeping, preparation of Financial Status Reports, etc.
- 2) The NDEP has established the Office of Financial and Personnel Management in order to provide the necessary accounting for monies received through numerous sources including the generation of fees, monetary judgments, the State general fund, and federal funding. The NDEP, in this manner, manages a large number of grants through cooperative agreements with the US EPA for all environmental programs including CERCLA, RCRA, the Clean Water Act, and the Clean Air Act.

In the previous state fiscal year, the Office of Financial and Personnel Management prepared Single Audit Reports for each of the 59 federal grant funding sources overseen by the NDEP. There were no adverse audit findings from any of the reports.

There have been no adverse audit findings on any of the grants managed by the NDEP through CERCLA authority including its Core/Consolidated grants for the completion of Preliminary Assessments/Site Inspections, oversight of release reporting, the development of an environmental response program, and the performance of Targeted Brownfields Assessments. The NDEP has not been required to comply with "high risk" terms and conditions for any of the federal grants which it manages.

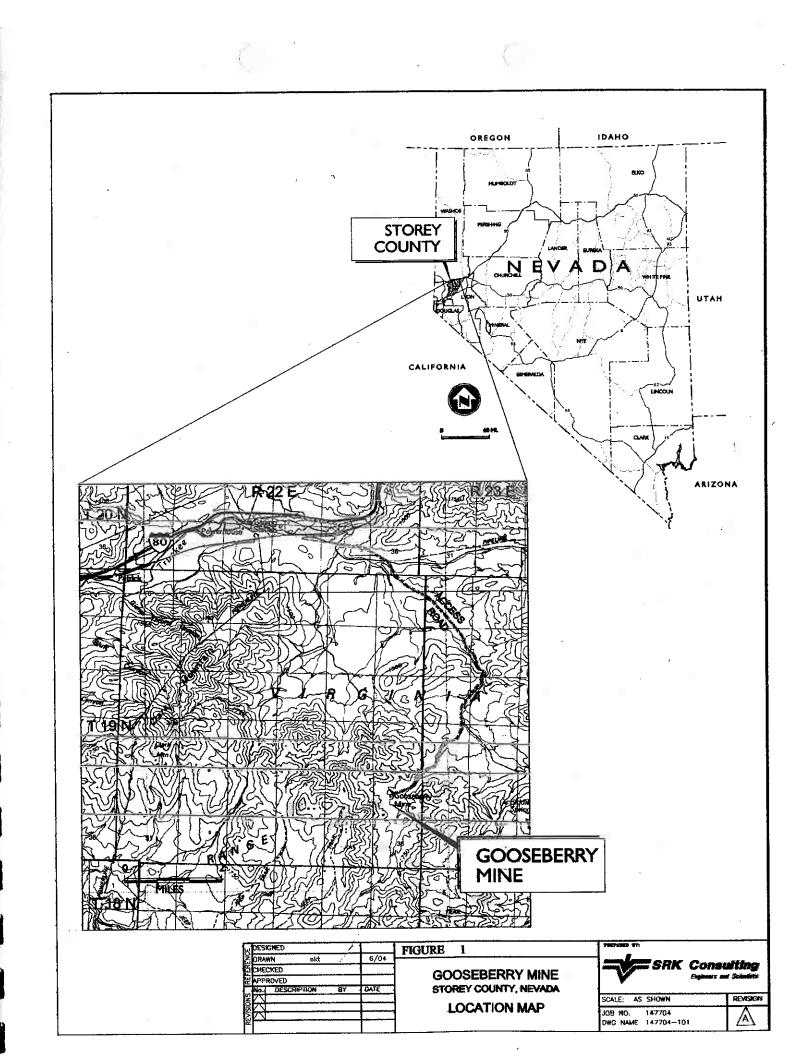
- 3) The NDEP has managed a Brownfields Program for over five years through cooperative agreements with the EPA. The funds used to operate the Brownfields Program have come from Targeted Brownfields Assessment/Voluntary Cleanup Program grant funds and CERCLA Section 128 State Response Program grant funds. Additionally, the NDEP was the recipient of a Brownfields Cleanup Revolving Loan Fund competitive grant award. Quarterly reports for all program activities are provided to the Nevada Project Officer and BCRLF grant manager of EPA Region IX within 15 days of the close of the quarter. Brownfields reporting measures are provided for all sites involved in the State program through the submittal and updating of WasteLAN Brownfields Coding Sheets. Data for periodic queries from the EPA Nevada Project Officer regarding program operation are provided in as prompt a manner as possible. Final Financial Status Reports are prepared and submitted by the Office of Personnel and Financial Management within 60 days after the close of the state fiscal year.
- 4) Through its Targeted Brownfields Assessment and State Response Program grants over the past three years, the Nevada Division of Environmental Protection has been able to commit \$800,000 of its \$830,000 contract authority for the completion of site-specific brownfields assessments and cleanups and for the hosting of statewide Brownfields conferences and workshops to promote both the state and federal programs.

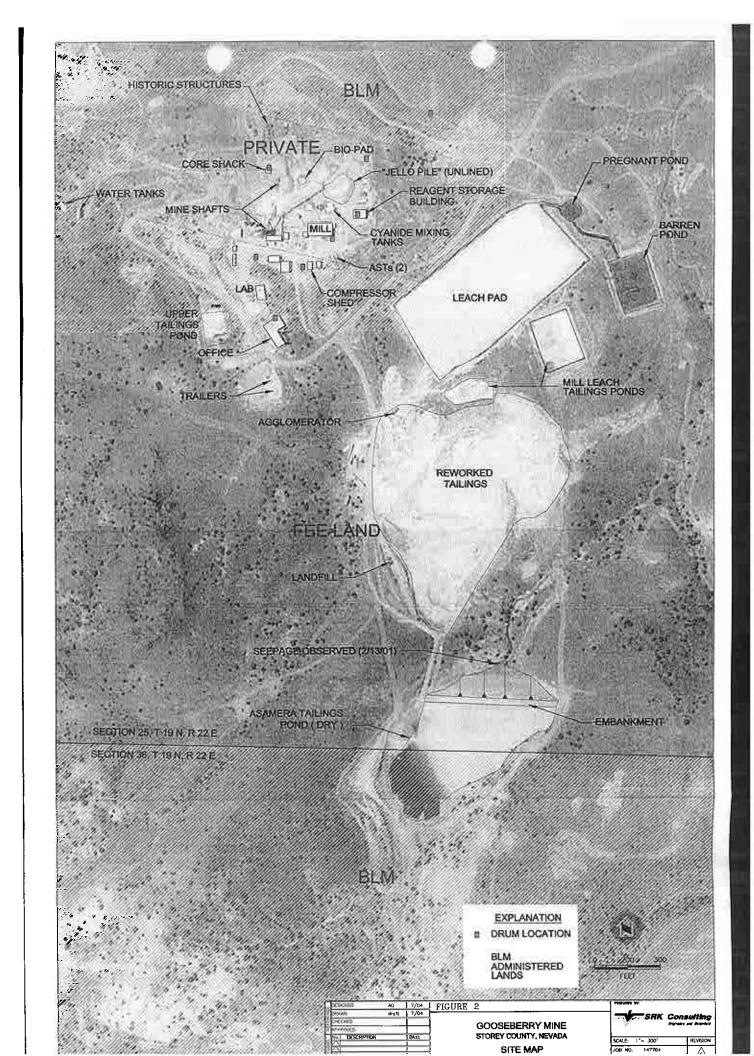
The NDEP is currently in the process of transitioning its \$2 million BCRLF grant awarded in 2001 under the "old" CERCLA Subpart O authority to the "new" authorities and guidelines contained in the Brownfields Revitalization Act. It is anticipated that the ability to provide loans for petroleum contaminated site cleanups, which are far more common in the State of Nevada than hazardous substance cleanups, will result in greater success in making loans to private developers to promote site cleanup and redevelopment.

- 5) The NDEP Brownfields Program has been able to provide assessments and cleanup services on numerous small brownfields sites across the state. The projects undertaken have been fairly evenly spread across our urban and rural population centers with Brownfields services being provided to each of the major metropolitan areas (Reno and Las Vegas) and many of the small communities in Nevada. A brief description of one urban and one rural project is provided to highlight the opportunities being created by the Brownfields Program in Nevada's communities:
- Site assessment services were provided to the Washoe County Regional Transportation Commission during their municipal bus station expansion and relocation citing process. Their preferred site in downtown Reno, based on location and traffic patterns, was unfortunately located on the site of one of the area's first and largest dry cleaners, long since abandoned. The performance of the Brownfields assessment cleared the way for the purchase and development of the site and for the leveraging of county and Federal Transportation Administration resources.
- Brownfields assessment and cleanup funds are being used to reclaim the historic 290-acre landfill in Hawthorne, Nevada. The landfill site is in the middle of the only developable land available to this small, rural community which is entirely surrounded by Department of Defense land and facilities. The cleanup of this eyesore and public health threat will help Hawthorne to expand residential development for people seeking rural retirement living spaces and to provide new commercial and recreational opportunities.

Nevada Division of Environmental Protection Gooseberry Mine Site: Hazardous Substance Assessment Grant Proposal

Appendix A: Facility Location and Site Maps (2 pages)





Nevada Division of Environmental Protection Gooseberry Mine Site: Hazardous Substance Assessment Grant Proposal

> Appendix B: Letters from Storey County and Agencies (4 pages)

26 "B" Street, Virginia City

Drawer D Virginia City, NV 89440 (775-847-0968 FAX 847-0949

November 4, 2004

Mr. Scott Smale
Brownsfields/State Response
Bureau of Corrective Action
Dept. of Conservation and Natural
Resources
Div. of Environmental Protection
333 W. Nye Lane, Rm. 138
Carson City, Nevada 89706

Dear Mr. Smale

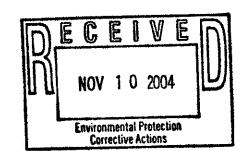
Re: Gooseberry Mine assessment application

The Gooseberry Mine assessment application is extremely important to Storey County as it will help to get this property back on the tax rolls. Once this is back on the tax rolls it will help with the surrounding industrial redevelopment which will help with the economy of Storey County.

Storey County is a very small rural County and has limited resources available though County government with a project of this size.

Storey County is very committed in participating however necessary in the completion of the project from assessment to cleanup.

Storey County is committed to an active and open involvement with the regulatory agencies involved at the site, including the Nevada Division of Environmental Protection, BLM, and Nevada Division of Minerals.



If you have any questions please do not hesitate to contact the Commissioners Office.

Sincerely,

Robert Kershaw, Chairman

Storey County Commissioners

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STATE OF NEVADA COMMISSION ON MINERAL RESOURCES

DIVISION OF MINERALS

400 W. King Street, Suite 106
Carson City, Nevada 89703
(775) 684-7040 • Fax (775) 684-7052
http://minerals.state.nv.us/

Las Vegas Branch:
1771 E. Flamingo Rd.
Suite 120-A
Las Vegas, Nevada 89119
(702) 486-4343
Fax (702) 486-4345
ALAN R. COYNER
Administrator

October 27, 2004

Mr. Scott Smale Nevada Brownfields Program, NDEP 333 West Nye Lane, Room 138 Carson City, NV 89706

Re: Gooseberry Mine assessment grant application

Dear Mr. Smale,

The Nevada Division of Minerals (NDOM) offers its full support for your application for federal assessment funding for the Gooseberry Mine site.

The Gooseberry Mine site consists of an underground precious metals mine, mill, heap leach pad, tailings impoundment, and associated roads, ponds, and buildings. The former owner/operator of the Gooseberry Mine, was a participant in the Nevada Reclamation Bond Pool, administered by NDOM. The bond, in the amount of \$269,195.00 has become forfeited. To date, approximately \$160,000 of the bond money has been spent removing and/or containing the obvious hazardous materials present at the site.

The site has not been fully characterized, so the extent of remaining work to be done is not known, but will surely exceed the amount of remaining bond money by a considerable amount.

The site's location would make it very attractive for industrial redevelopment once characterization and any necessary clean-up work was done. NDOM believes the Gooseberry Mine site is an ideal candidate for the Brownfields Program, and supports this application.

Sincerely,

Doug Driesner

Director of Mining Services

(775) 687-4670

Administration Facsimile 687-5856

Water Quality Planning Water Pollution Control Facsimile 687-4684

Mining Regulation and Reclamation Facsimile 684-5259 STATE OF NEVADA KENNY C. GUINN Governor



DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES

Air Pollution Control Air Quality Planning Facsimile 687-6396

Waste Management Federal Facilities

Corrective Actions
Facsimile 687-8335

NDEP.nv.gov

DIVISION OF ENVIRONMENTAL PROTECTION

333 W. Nye Lane, Room 138 Carson City, Nevada 89706

October 27, 2004

Scott Smale
Nevada Division of Environmental Protection
Nevada Brownfields Program
333 West Nye Lane, Room 138
Carson City, NV 89706

Re:

Gooseberry Mine, Brownfields Program

Mr. Smale:

The Closure Branch of the Bureau of Mining Regulation and Reclamation (BMRR) has reviewed the Gooseberry Mine assessment grant application submitted by the Nevada Brownfields Program and Storey County. The application for Federal assistance in the funding for assessment of the site as a potential Brownfields was correct in accuracy and completeness based on data located in files in our office. Further assessment of the site is warranted for assurance that any potential environmental concerns remaining onsite are identified for appropriate actions. The Gooseberry Mine assessment grant application being submitted by the Nevada Brownfields Program and Storey County is supported by the BMRR.

Sincerely

Kevin E. Sullivan

Closure Branch, BMRR

Cc:

1300

Dave Gaskin

Kurt Kolbe